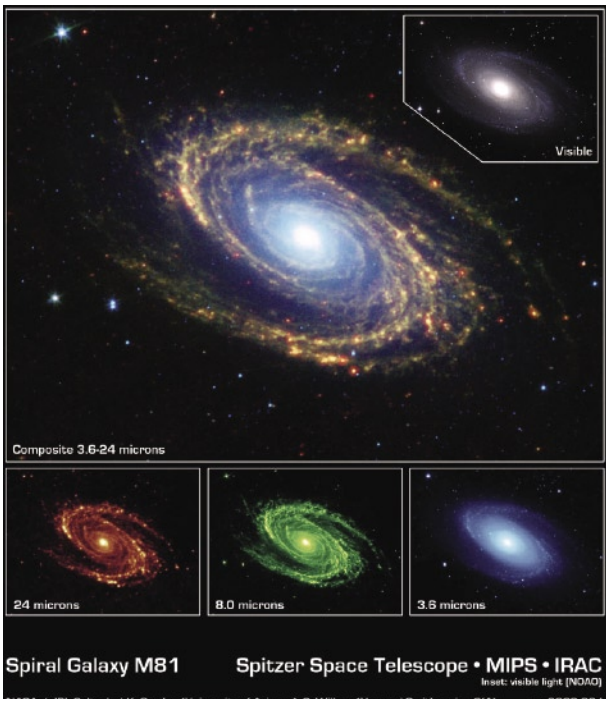
Making of a Scientist: Images and Reality

Public Lecture Series, Fall 2005 – Spring 2006

7:00 pm, Thursday, February 9, 2006

NASA Goddard Visitor Center Auditorium

Blue Planets, Black Holes



Dr. Anne Kinney

Director, Astrophysics Division
Science Mission Directorate, NASA Headquarters

Abstract

A decade ago, all the planets we knew were in our own solar system. Today we know of over a hundred large planets surrounding other stars. Astronomers are now in hot pursuit of ever smaller planets, with the ultimate goal of finding earth-like planets that could potentially support life. How do astronomers detect these distant, faint objects, and what missions are planned in the future to find such earth analogues? The search for terrestrial planets is a central theme of the Exploration Initiative at NASA.

Opposite in every way from such blue planets are black holes. Like extra-solar planets, the first hard evidence for black holes is barely a decade old. These discontinuities in space-time are known now to be ubiquitous, inhabiting the centers of galaxies in the distant universe, and serving as the end of the road for massive stars. Current progress and future missions on black holes will be discussed.

Finally, courtesy of the three Great Observatories currently in orbit, we will have a short tour of our known universe, starting from 300,000 years after the beginning of time, proceeding through the most distant, early galaxies, then through our galaxy, and finally into our own home solar system, 13.7 billion years later.

Background

As the Director of the Astrophysics Division, in the Science Mission Directorate at NASA Headquarters, Dr. Kinney manages over thirty flight projects including such missions as Spitzer Space Telescope, Chandra, Hubble, as well as future missions like JWST and LISA. Originally from Wisconsin, Dr. Kinney received her bachelor's degree in 1975. She studied for several years at the Niels Bohr Institute in Denmark, and received her doctorate in Physics from New York University in 1984. Dr. Kinney has served on the Council of the American Astronomical Society, and has been a visiting scholar at the Institute of Astronomy in Cambridge. An expert in extragalactic astronomy, Dr. Kinney has worked on characterizing the optical and UV spectra of quasars, blazars, active and normal galaxies. She has also studied active galaxies accretion disk signatures.

Admission is free. Please RSVP online to reserve a spot.

http://university.gsfc.nasa.gov/mos/

For questions contact us by phone at 301-286-2893/ 9690 or by email at LRana@pop600.gsfc.nasa.gov

"Making of a Scientist" is a new public lecture series featuring some of the most remarkable and inspiring women in space, science and scientific leadership.